



# STIC Search Report

## EIC 1700

STIC Database Tracking Number: 150228

TO: Dawn Garrett  
Location: REM 10C79  
Art Unit : 1774  
April 19, 2005

Case Serial Number: 10/803770

From: Usha Shrestha  
Location: EIC 1700  
REMSSEN 4B28  
Phone: 571/272-3519  
usha.shrestha@uspto.gov

### Search Notes

**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: DAWN GARRETT Examiner #: 76107 Date: 4/7/05  
 Art Unit: 1774 Phone Number ~~2~~ 2-1523 Serial Number: 10/803, 770  
 Mail Box and Bldg/Room Location: Rm 10C79 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Organic Element For Electroluminescent Devices  
 Inventors (please provide full names): Scott Conley

Earliest Priority Filing Date: 3/18/2004 SCIENTIFIC REFERENCE BR  
 Sci & Tech Inf. Ctr.

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number. APR 8 REC'D

Pat. &amp; T.M. Office

Please search bis (aryloxy)azine borohalide complexes as part of an electroluminescent (light-emitting) device as listed in cl. 1.

Please include a specific search of formulas (1) and (2) as shown in the claims.

Thank you.

STAFF USE ONLY

Type of Search

Vendors and cost where applicable

=> fil reg

FILE 'REGISTRY' ENTERED AT 15:19:26 ON 19 APR 2005  
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=> d his

FILE 'LREGISTRY' ENTERED AT 14:28:09 ON 19 APR 2005  
L1 STR

FILE 'REGISTRY' ENTERED AT 14:32:14 ON 19 APR 2005  
L2 0 S L1

FILE 'HCAPLUS' ENTERED AT 14:35:25 ON 19 APR 2005  
L3 32 S CONLEY S?/AU  
L4 6 S L3 AND ELECTROLUM?  
L5 2 S L4 AND ORGANIC(A)ELEMENT?  
SEL RN

□□□□ SAV L9 GAR770/A

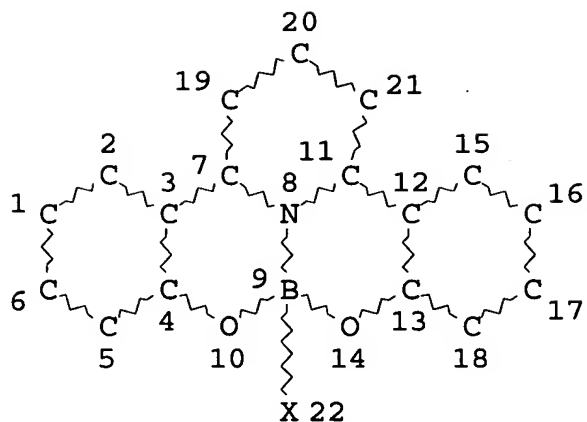
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L6 49 S E50-E98  
L7 STR L1  
L8 0 S L7  
L9 7 S L7 FUL

FILE 'HCAPLUS' ENTERED AT 15:14:57 ON 19 APR 2005  
L10 10 S L9  
L11 9 S L10 NOT AZADIOL?

FILE 'REGISTRY' ENTERED AT 15:19:26 ON 19 APR 2005

=> d que l10

L7 STR



DEFAULT MLEVEL IS ATOM

MLEVEL IS CLASS AT 19 20 21

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS UNLIMITED AT 19 20 21

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

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L9          7 SEA FILE=REGISTRY SSS FUL L7
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L10      10 SEA FILE=HCAPLUS  ABB=ON   PLU=ON   L9
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=> fil hcap
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FILE 'HCAPLUS' ENTERED AT 15:19:44 ON 19 APR 2005

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=> d l11 1-9 ibib abs hitstr hitind
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L11 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:188024 HCAPLUS

DOCUMENT NUMBER: 140:397152

TITLE: Charge-transfer states and white emission in organic light-emitting diodes: a theoretical investigation

AUTHOR(S): Fang, Yan; Gao, Shengli; Yang, Xia; Shuai, Z.;  
CORPORATE SOURCE: Beljonne, D.; Bredas, J. L.  
University, Department of Chemistry, Northwest  
SOURCE: Xi'an, 710069, Peop. Rep. China  
Synthetic Metals (2004), 141(1-2), 43-49  
CODEN: SYMEDZ; ISSN: 0379-6779  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

*Issue:  
Mar. 18, 2004*

AB Efficient white light emission was recently reported in an electroluminescent device where the active material is a complex made of N,N'-bis( $\alpha$ -naphthyl)-N,N'-diphenyl-1,1'-biphenyl-4,4'-diamine (NPB) and a B-F derivative of 1,6-bis(2-hydroxy-5-methylphenyl)pyridine ((mdppy)BF). The intermol. charge transfer in the materials was studied theor. The interfacial layer is modeled from a simple dimer structure, for which the lowest excited states are described in the framework of a correlated quantum-chemical semiempirical technique. From the anal. of the calculated excited-state wavefunctions, the lowest excited state possesses significant contributions from charge-transfer excitations from the donor (NPB) to the acceptor ((mdppy)BF).

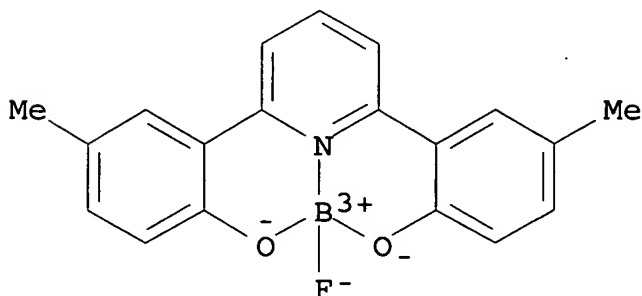
The influence of intermol. distance and medium polarization are also explored.

IT 405506-70-9

(charge-transfer states and white emission in organic LEDs containing)

RN 405506-70-9 HCAPLUS

CN Boron, fluoro[[2,2'-(2,6-pyridinediyl- $\kappa$ N)bis[4-methylphenolato- $\kappa$ O]](2-)]-, (T-4)- (9CI) (CA INDEX NAME)



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 22, 76

IT 123847-85-8, N,N'-Bis( $\alpha$ -naphthyl)-N,N'-diphenyl-1,1'-  
biphenyl-4,4'-diamine 405506-70-9

(charge-transfer states and white emission in organic LEDs  
containing)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L11 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:417072 HCAPLUS

DOCUMENT NUMBER: 139:124745

TITLE: Thickness dependent emission color of organic  
white light-emitting devices

AUTHOR(S): Feng, Jing; Liu, Yu; Li, Feng; Wang, Yue;  
Liu,

Shiyong

CORPORATE SOURCE: National Lab of Integrated Optoelectronics,  
Jilin University, Changchun, 130023, Peop.  
Rep. China ✓

SOURCE: Synthetic Metals (2003), 137(1-3), 1101-1102  
CODEN: SYMEDZ; ISSN: 0379-6779

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors demonstrate mol. organic white light-emitting devices  
(LEDs), using vacuum-deposited thin films of N,N'-diphenyl-N,N'-  
bis(1-naphthyl)(1,1'-biphenyl)-4,4'-diamine (NPB) as the  
hole-transporting layer, 1,6-bis(2-hydroxyphenyl)pyridine B  
complex ((dppy)BF) as the emitting layer, tris-(8-  
hydroxyquinoline)aluminum (Alq) doped with

4-(dicyanomethylene)-2-

t-butyl-6-(1,1,7,7-tetramethyljulolidyl-9-enyl)-4H-pyran (DCJTB)  
as the red-emitting layer. The chromaticity of the devices can

be

tuned by varying the thickness of (dppy)BF and doped Alq layers.  
The Commission Internationale De L'Eclairage (CIE) coordinates of  
emitted light vary from (0.31,0.335) to (0.32,0.345) when forward  
voltages change from 10 to 20 V, which are just adjacent to the  
white-light equi-energy point (0.33,0.33). The brightness and  
luminous efficiency are 150 cd/m<sup>2</sup> and 0.3 lm/W at 12 V, resp.

IT 300348-52-1

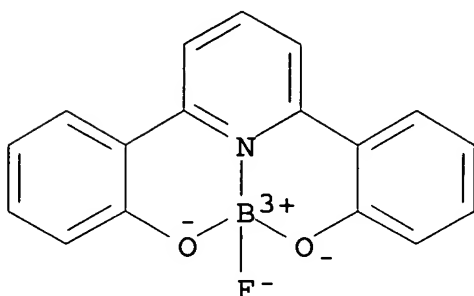
(thickness dependent emission color of organic white light

LEDs

containing)

RN 300348-52-1 HCAPLUS

CN Boron, fluoro[[2,2'-(2,6-pyridinediyl- $\kappa$ N)bis[phenolato- $\kappa$ O]](2-)]-, (T-4)- (9CI) (CA INDEX NAME)



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 123847-85-8, NPB 300348-52-1

(thickness dependent emission color of organic white light

LEDs

containing).

REFERENCE COUNT:

11

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L11 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:219217 HCAPLUS

DOCUMENT NUMBER: 139:221243

TITLE: Chromaticity-stable organic white light-emitting devices based on mixed pyridine-phenol boron complex

AUTHOR(S): Feng, Jing; Liu, Yu; Li, Feng; Wang, Yue; Liu,

Shiyong

CORPORATE SOURCE: National Lab of Integrated Optoelectronics, Jilin University, Changchun, 130023, Peop. Rep. China

SOURCE: Optical and Quantum Electronics (2003), 35(3),

259-265

CODEN: OQELDI; ISSN: 0306-8919

PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Mol. organic white LEDs are demonstrated, using vacuum-deposited thin

films of N,N'-diphenyl-N,N'-bis(1-naphthyl)(1,1'-biphenyl)-4,4'-diamine (NPB) as the hole-transporting layer, 1,6-bis(2-hydroxyphenyl)pyridine(fluoro)boron ((dppy)BF) as the emitting layer, tris(8-hydroxyquinoline)aluminum (Alq) doped with 4-(dicyanomethylene)-2-t-butyl-6-(1,1,7,7-tetramethyljulolidyl-9-enyl)-4H-pyran (DCJTB) as the red-emitting layer. The white light

comes from 3 components: exciplex emission at the interface between NPB and (dppy)BF, which covers the wide range from 500 to 700 nm, blue emission from bulk NPB and (dppy)BF and red emission from DCJTB. The chromaticity of the devices can be tuned by varying the thickness of (dppy)BF and doped Alq layers. The Commission Internationale De L'Eclairage (CIE) coordinates of emitted light vary from (0.31, 0.335) to (0.32, 0.345) when forward voltages change from 10 to 20 V, which are just adjacent to the white-light equi-energy point (0.33, 0.33). The

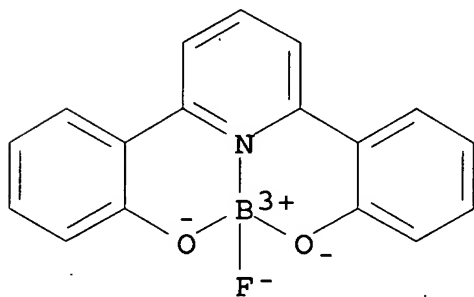
brightness

and luminous efficiency are 150 cd/m<sup>2</sup> and 0.31 m/W at 12 V, resp.

IT 300348-52-1, 1,6-Bis(2-hydroxyphenyl)pyridine(fluoro)boron  
(chromaticity-stable organic white LEDs based on)

RN 300348-52-1 HCAPLUS

CN Boron, fluoro[[2,2'-(2,6-pyridinediyl-κN)bis[phenolato-κO]](2-)]-, (T-4)- (9CI) (CA INDEX NAME)



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 300348-52-1, 1,6-Bis(2-hydroxyphenyl)pyridine(fluoro)boron  
(chromaticity-stable organic white LEDs based on)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS

AVAILABLE

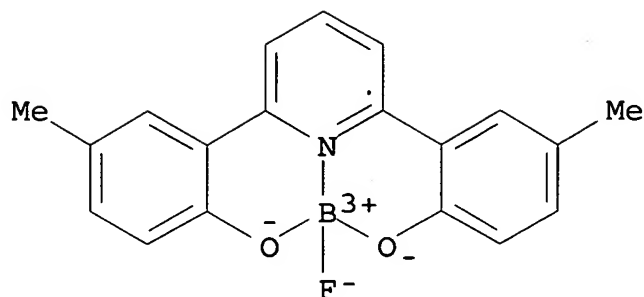
IN THE RE FORMAT

L11 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:548912 HCAPLUS



DOCUMENT NUMBER: 137:192500  
TITLE: Highly efficient white organic electroluminescence from a double-layer device based on a boron hydroxyphenylpyridine complex. Reply to comments  
AUTHOR(S): Liu, Yu; Guo, Jianhua; Zhang, Huidong; Wang, Yue  
CORPORATE SOURCE: Key Laboratory for Supramolecular Structure and Materials of the Ministry of Education, Jilin University, Changchun, 130023, Peop. Rep. China  
SOURCE: Angewandte Chemie, International Edition (2002), 41(13), 2274  
CODEN: ACIEF5; ISSN: 1433-7851  
PUBLISHER: Wiley-VCH Verlag GmbH  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB A polemic is given in answer to a comment of P. T. Chou et al. (ibid. 2002, 41, 2273) on the work of Y. Liu et al. (ibid. 2002, 41, 182) dealing with the electroluminescent properties of the complex compound 1,6-bis(2-hydroxy-5-methylphenyl)pyridine BF ((mdppy)BF). The authors agree with Chou and his coworkers that stray light could disturb the features of the EL spectrum. In addition to the low luminance (30 cd m<sup>-2</sup>) EL spectrum of the white-light device ITO/NPB/(mdppy)BF/LiF/Al, here, the EL spectrum at a higher luminance of 120 cd m<sup>-2</sup> was measured and compared with the low-luminance spectrum. The performance data of the white-light EL device remained unchanged.  
IT 405506-70-9 (highly efficient white organic electroluminescence from a double-layer device based on a B hydroxyphenylpyridine complex)  
RN 405506-70-9 HCAPLUS  
CN Boron, fluoro[[2,2'-(2,6-pyridinediyl-κN)bis[4-methylphenolato-κO]](2-)]-, (T-4)- (9CI) (CA INDEX NAME)



CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 76

IT 405506-70-9

(highly efficient white organic electroluminescence from a double-layer device based on a B hydroxyphenylpyridine complex)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L11 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:548911 HCAPLUS

DOCUMENT NUMBER: 137:192499

TITLE: Highly efficient white organic electroluminescence from a double-layer device

based on a boron hydroxyphenylpyridine complex. Comments

AUTHOR(S): Chou, Pi-Tai; Cheng, Chung-Chih; Chiou, Chau-Shuen; Wu, Guo-Ray

CORPORATE SOURCE: Department of Chemistry, National Taiwan University, Taipei, Taiwan

SOURCE: Angewandte Chemie, International Edition (2002), 41(13), 2273

CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A polemic is given in answer to a paper of Y. Liu et al. (ibidem 2002, 41, 182-184) dealing with the compound 1,6-bis(2-hydroxy-5-methylphenyl)pyridine BF ((mdppy)BF) and its electroluminescent properties. A highly efficient white-light device was produced with the configuration ITO/NPB/(mdppy)BF/LiF/Al (ITO = In-Sn

oxide, NPB = N,N'-bis( $\alpha$ -naphthyl)-N,N''-diphenyl-1,1'-biphenyl-4,4'-diamine). Here, the electroluminescence (EL) spectrum of (mdppy)BF measured by Liu and his coworkers was reexamd. and a stray light interference was supposed. Four major Hg lines overlapped with peaks of the EL spectrum of (mdppy)BF, and an equipment failure was ascertained due to the different spectral response of the charge-coupled detector (CCD, Princeton Instruments, model 576G/1) and the PR650 spectrometer used by

Liu.

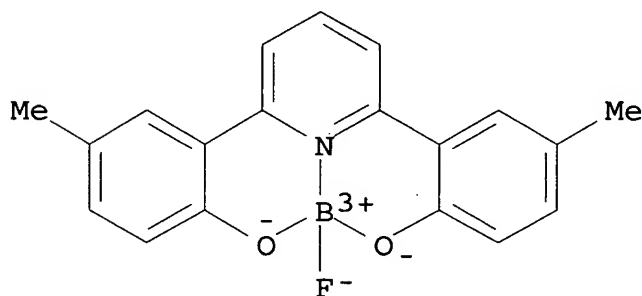
IT 405506-70-9

(highly efficient white organic electroluminescence from a double-layer device based on a B hydroxyphenylpyridine

complex)

RN 405506-70-9 HCAPLUS

CN Boron, fluoro[[2,2'-(2,6-pyridinediyl- $\kappa$ N)bis[4-methylphenolato- $\kappa$ O]](2-)]-, (T-4)- (9CI) (CA INDEX NAME)



CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 123847-85-8, NPB 405506-70-9

(highly efficient white organic electroluminescence from a double-layer device based on a B hydroxyphenylpyridine

complex)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L11 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:386575 HCAPLUS

DOCUMENT NUMBER: 137:160801

TITLE: White light emission from exciplex

AUTHOR(S): Feng, Jing; Liu, Yu; Wang, Yue; Liu, Shiyong

CORPORATE SOURCE: National Laboratory of Integrated Optoelectronics, Jilin University, Changchun,

SOURCE: 130023, Peop. Rep. China  
Faguang Xuebao (2002), 23(1), 25-28  
CODEN: FAXUEW; ISSN: 1000-7032  
PUBLISHER: Kexue Chubanshe  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese

AB Electroluminescent devices based on organic semiconductors have gained a great deal of attention because of their high luminance, low drive voltage, and variety of emission colors. Different applications have different demands on the emitted light; sometimes colors are needed and in other cases it is necessary to have a bright white light source, especially for backlight applications

in liquid crystal displays. Organic white light emitting diodes (LEDs) based on electroluminescent organic mols. were reported using the microcavity technique, multilayer structures, multiple-quantum wells structures, or polymer LED based on polymer blends. However, most of the methods have the drawback that the chromaticity of emission color changes largely with the operating voltage, or the fabrication processes are more complex. The authors demonstrate efficient organic white light-emitting devices(LEDs), using N,N'-diphenyl-N,N'-bis(1-naphthyl)(1,1-biphenyl)-4,4'-diamine (NPB) as hole-transporting layer, 1,6-bis(2-hydroxyphenyl) pyridine B complex ((dppy)BF) as emitting

layer, tris-(8-hydroxyquinoline)aluminum (Alq) as electron-transporting and chromaticity-tuning layer. This type of

device has a simpler structure than those mentioned above, thus the fabrication process is much simpler. The white light comes from exciplex emission at the solid-state interface between (dppy)BF and NPB and from the exciton emission of NPB and (dppy)BF

layers resp. The chromaticity of white emission can be tuned by adjusting the thickness of Alq. Layer. The white LEDs with the Alq thickness of 15 nm exhibit a maximum luminescence of 2000 cd/m<sup>2</sup>

and efficiency of 0.58 lm/W, and the Commission Internationale De L'Eclairage (CIE) coordinates of resulting emission vary from (x

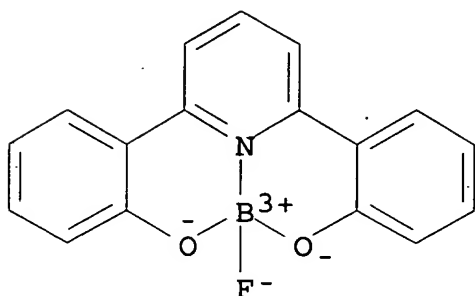
= 0.29, y = 0.33) to (x = 0.31, y = 0.35) with increasing forward bias from 10 V to 25 V. The region is very close to equienergy white point (x = 0.33, y = 0.33).

IT 300348-52-1

(white light emission from exciplex)

RN 300348-52-1 HCAPLUS

CN Boron, fluoro[[2,2'-(2,6-pyridinediyl- $\kappa$ N)bis[phenolato- $\kappa$ O]](2-)]-, (T-4)- (9CI) (CA INDEX NAME)



CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)  
 IT 2085-33-8, Al 8q 7429-90-5, Aluminum, uses 7789-24-4, Lithium fluoride, uses 50926-11-9, Ito 123847-85-8, NPB  
 300348-52-1  
 (white light emission from exciplex)

L11 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:62623 HCAPLUS

DOCUMENT NUMBER: 136:286176

TITLE: Highly efficient white organic electroluminescence from a double-layer device

based on a boron hydroxyphenylpyridine

complex

AUTHOR(S): Liu, Yu; Guo, Jianhua; Zhang, Huidong; Wang, Yue

CORPORATE SOURCE: Key Lab. Supramolecular Structure and Materials, Jilin Univ., Changchun, 130023, Peop. Rep. China

SOURCE: Angewandte Chemie, International Edition (2002), 41(1), 182-184

CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The new luminescent material 1,6-bis(2-hydroxy-5-methylphenyl)pyridine ((mdppy)BF) was synthesized and its electroluminescent (EL) properties were studied. The ligand ((mdppy)BF (H2mdppy)) was prepared by the reaction of 2,6-dibromopyridine and the Grignard reagent from 2-bromo-4-methylanisole in THF with [NiCl2(dppe)] as catalyst.

This was followed by demethylation in molten pyridinium chloride to yield H2mdppy. Reaction of H2mdppy with 1 equiv of BF<sub>3</sub> in benzene produced (mdppy)BF. Highly efficient white-light EL devices can be fabricated from this material. The white electroluminescence was due to exciplex emissions at the

interface

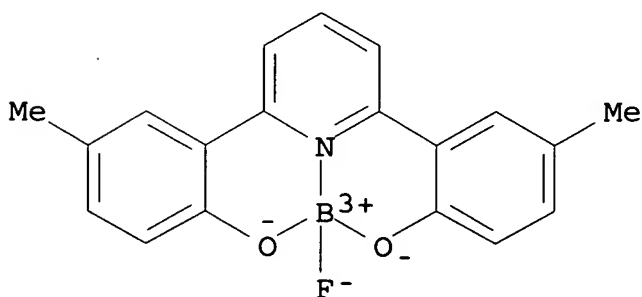
between N,N'-bis( $\alpha$ -naphthyl)-N,N'-diphenyl-1,1,4,4'-diamine and (mdppy)BF. This offers the opportunity for constructing high-performance white EL devices based on only one emitting material and with a simple device structure. The reported EL device could have the potential applications in microgravity EL devices for selectively enhancing individual or multiple colors that lie within the EL spectrum band.

IT 405506-70-9P

(multilayer with NPB; highly efficient white organic electroluminescence from double-layer device based on boron hydroxyphenylpyridine complex)

RN 405506-70-9 HCAPLUS

CN Boron, fluoro[[2,2'-(2,6-pyridinediyl- $\kappa$ N)bis[4-methylphenolato- $\kappa$ O]](2-)]-, (T-4)- (9CI) (CA INDEX NAME)



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 76, 77, 78

IT 405506-70-9P

(multilayer with NPB; highly efficient white organic electroluminescence from double-layer device based on boron hydroxyphenylpyridine complex)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L11 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:785938 HCAPLUS

DOCUMENT NUMBER: 133:315395  
TITLE: (Hydroxyphenyl)pyridine derivative, its metal complexes and application as electroluminescence material  
INVENTOR(S): Wang, Yue; Wu, Ying; Li, Yanqin; Liu, Yu; Lu, Dan; Shen, Jiacong  
PATENT ASSIGNEE(S): Jilin Univ., Peop. Rep. China  
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 23 pp.  
CODEN: CNXXEV  
DOCUMENT TYPE: Patent  
LANGUAGE: Chinese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
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1999	CN 1245822	A	20000301	CN 1999-118700
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AB The title complexes with Zn, Be, Mg, Ca, B, Al, Ga, or In, etc., useful as electroluminescence material being capable of emitting blue, red, yellow, orange, and white lights, are prepared. Some ligands such as 2-(2-pyridyl)phenol, 2,6-bis(2-hydroxyphenyl)pyridine, 4-nitro-2-(2-pyridyl)phenol, 4-hydroxy-3-benzonitrile, 4-nitro-3-(4-phenyl-2-pyridyl)benzonitrile, 4-methyl-2-(4-methyl-2-pyridyl)phenol, 4-methoxy-2-(4-methoxy-2-pyridyl)phenol, 2-(4-dimethylamino-2-pyridyl)phenol, 2-(4-phenyl-2-pyridyl)phenol, 2,4-bis(2-pyridyl)phenol, 2,6-bis(2-hydroxyphenyl)-4-methylpyridine, N,N'-bis(3-methylphenyl)-N,N'-diphenylbenzidine are also synthesized. Some electroluminescent devices containing the

metal

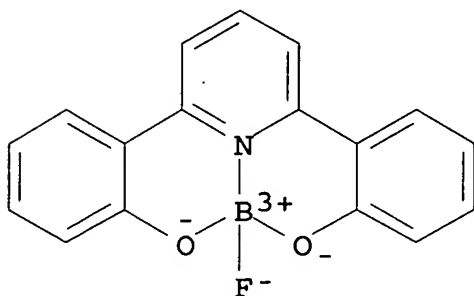
complexes as phosphors, ITO, polymeric materials, etc. were manufactured by vapor deposition and electroplating.

IT 300348-52-1P, [2,6-Di(2-hydroxyphenyl)pyridine-N,O,O']-

]boron fluoride 302580-65-0P  
 ((hydroxyphenyl)pyridine metal complexes as  
 electroluminescence  
 material)

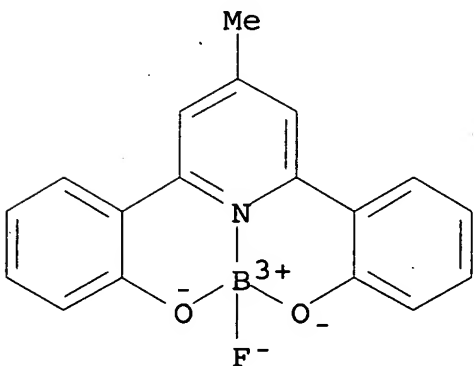
RN 300348-52-1 HCAPLUS

CN Boron, fluoro[[2,2'-(2,6-pyridinediyl-κN)bis[phenolato-κO]](2-)]-, (T-4)- (9CI) (CA INDEX NAME)



RN 302580-65-0 HCAPLUS

CN Boron, fluoro[[2,2'-(4-methyl-2,6-pyridinediyl-κN)bis[phenolato-κO]](2-)]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM C09K011-07

CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 76, 78

IT 220694-90-6P 300348-52-1P, [2,6-Di(2-hydroxyphenyl)pyridine-N,O,O'-]boron fluoride 302580-45-6P  
 302580-48-9P 302580-51-4P 302580-53-6P 302580-55-8P  
 302580-57-0P 302580-59-2P 302580-61-6P 302580-63-8P



302580-65-0P

((hydroxyphenyl)pyridine metal complexes as  
electroluminescence  
material)

L11 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:522169 HCAPLUS

DOCUMENT NUMBER: 133:290260

TITLE: A mixed pyridine-phenol boron complex as an  
organic electroluminescent materialAUTHOR(S): Li, Yanqin; Liu, Ya; Bu, Weiming; Guo,  
Jianhua; Wang, YueCORPORATE SOURCE: Key Lab. Supramol. Structure Spectroscopy,  
Jilin University, Changchun, 130023, Peop.  
Rep. ChinaSOURCE: Chemical Communications (Cambridge) (2000),  
(16), 1551-1552

CODEN: CHCOFS; ISSN: 1359-7345

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LANGUAGE: English

AB A blue light emitting BLF (H2L =  
1,6-bis(2-hydroxyphenyl)pyridine)was synthesized and used as an emitting material to fabricate  
electroluminescent devices. BLF is monoclinic, space group

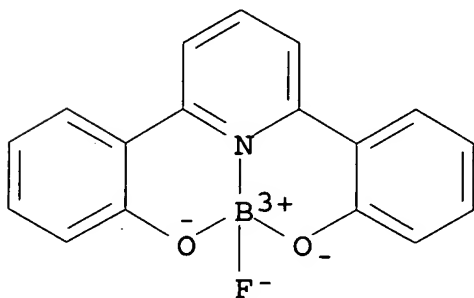
P21/c,

Z = 4, R1 = 0.066.

IT 300348-52-1P

(preparation and photoluminescence and electroluminescence and  
light-emitting material for electroluminescent devices)

RN 300348-52-1 HCAPLUS

CN Boron, fluoro[[2,2'-(2,6-pyridinediyl-κN)bis[phenolato-  
κO]](2-)]-, (T-4) - (9CI) (CA INDEX NAME)

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 73, 75

IT 300348-52-1P

(preparation and photoluminescence and electroluminescence and  
light-emitting material for electroluminescent devices)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS

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